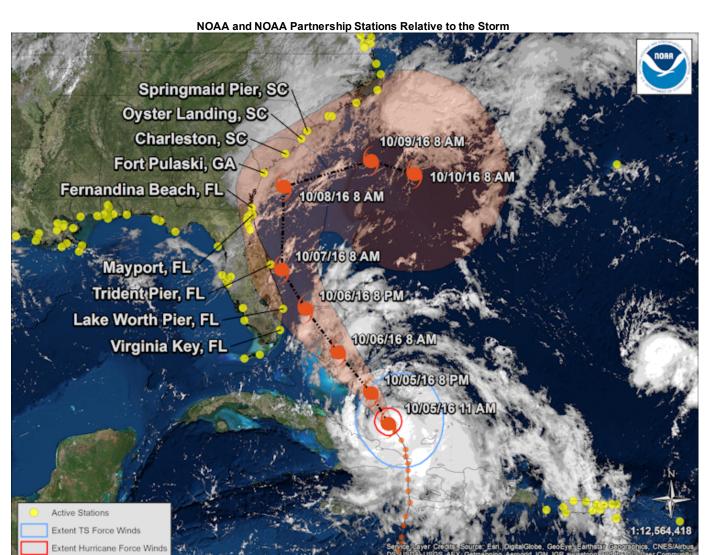




Hurricane MATTHEW QuickLook Posted: 12:00 EDT 10/05/2016



Storm Analysis

As of 10/05/2016 12:00 EDT, water levels along the coast from southern Florida to South Carolina are slightly elevated and range between 0.3 and 1.0 ft above normal tide levels. Winds are currently measuring between 10 and 20 kts with slightly higher gusts. Barometric pressure is generally steady across the region.

Water Level and Meteorological plots available below are updated automatically. A line denoting <u>Mean Higher High Water</u> (MHHW) is displayed to provide an approximate indication of when flooding inundation may occur.

For additional data, please see the <u>Center for Operational Oceanographic Products & Services</u> website. For more information or archived products and reports, please see the <u>Storm QuickLook</u> Homepage.

Analyst: AJC

HURRICANE MATTHEW ADVISORY NUMBER 30

NWS NATIONAL HURRICANE CENTER MIAMI FL

1100 AM EDT WED OCT 05 2016

...POWERFUL HURRICANE MATTHEW HEADING FOR THE BAHAMAS AFTER HITTING CUBA HARD...

...NOAA AND AIR FORCE HURRICANE HUNTER PLANES SIMULTANEOUSLY PENETRATE MATTHEW'S EYE...

WATCHES AND WARNINGS

CHANGES WITH THIS ADVISORY:

The Hurricane Warning has been extended northward from Sebastian Inlet to the Flagler/Volusia county line.

The Hurricane Warning for Haiti has been changed to a Tropical Storm Warning.

The government of the Dominican Republic has discontinued the Tropical Storm Warning and Tropical Storm Watch for the Dominican Republic.

SUMMARY OF WATCHES AND WARNINGS IN EFFECT:

A Hurricane Warning is in effect for...

- * Cuban provinces of Guantanamo, Santiago de Cuba, Holguin, Granma, and Las Tunas
- * Southeastern Bahamas, including the Inaguas, Mayaguana, Acklins, Crooked Island, Long Cay, and Ragged Island
- * Central Bahamas, including Long Island, Exuma, Rum Cay, San Salvador, and Cat Island
- * Northwestern Bahamas, including the Abacos, Andros Island, Berry Islands, Bimini, Eleuthera, Grand Bahama Island, and New Providence
- * North of Golden Beach to the Flagler/Volusia county line
- * Lake Okeechobee

A Hurricane Watch is in effect for...

- * Cuban province of Camaguey
- * North of the Flagler/Volusia county line to Fernandina Beach

A Tropical Storm Warning is in effect for...

- * Haiti
- * Turks and Caicos Islands
- * Chokoloskee to Golden Beach
- * Florida Keys from Seven Mile Bridge eastward
- * Florida Bay

Interests elsewhere in the Florida Peninsula and the Florida Keys should monitor the progress of Matthew.

For storm information specific to your area in the United States, including possible inland watches and warnings, please monitor products issued by your local National Weather Service forecast office. For storm information specific to your area outside the United States, please monitor products issued by your national meteorological service.

DISCUSSION AND 48-HOUR OUTLOOK

At 1100 AM EDT, the eye of Hurricane Matthew was located about 55 MI NNE of Cabo Lucretia, Cuba. Matthew is moving toward the northwest near 12 mph, and this motion is expected to continue during the next 24 to 48 hours. On this track, Matthew will be moving across the Bahamas through Thursday, and is expected to be very near the east coast of Florida by Thursday evening.

Maximum sustained winds are near 120 mph with higher gusts. Matthew is a category 3 hurricane on the Saffir-Simpson Hurricane Wind Scale. Some strengthening is forecast during the next couple of days, and Matthew is expected to remain at category 3 or stronger while it moves through the Bahamas and approaches the east coast of Florida.

Hurricane-force winds extend outward up to 45 miles from the center and tropical-storm-force winds extend outward up to 175 miles. An unconfirmed wind gust of 155 mph was reported in Baracoa, Cuba, last night as the eye of Matthew passed nearby.

The minimum central pressure reported by both Hurricane Hunter planes was 962 mb.

HAZARDS AFFECTING LAND

WIND: Hurricane conditions will gradually diminish over portions of eastern Cuba today. These conditions will continue over the southeastern Bahamas, and will spread over the central Bahamas later today and the northwestern Bahamas tonight.

Hurricane conditions are expected to first reach the hurricane warning area in Florida by late Thursday and will spread northward Thursday night and Friday. Tropical storm conditions are first expected in Florida by early Thursday.

RAINFALL: Matthew is expected to produce total rainfall amounts in the following areas:

Southern Haiti and southwestern Dominican Republic...15 to 25 inches, isolated 40 inches

Eastern Cuba and northwestern Haiti...8 to 12 inches, isolated 20 inches

Eastern Jamaica...additional 1 to 2 inches, isolated storm totals 12 inches

The Bahamas...8 to 12 inches, isolated 15 inches

Turks and Caicos Islands...2 to 5 inches, isolated 8 inches

Northeastern Haiti and the Northern Dominican Republic...1 to 3 inches, isolated 5 inches

Coastal east-central Florida....4 to 7 inches, isolated 10 inches

Florida Keys....1 to 3 inches, isolated 5 inches

Life-threatening flash floods and mudslides are likely in southern and northwestern Haiti, the southwestern Dominican Republic, and eastern Cuba.

STORM SURGE: The combination of a dangerous storm surge and large and destructive waves could raise water levels by as much as the following amounts above normal tide levels...

Northern Coast of Cuba east of Camaguey...4 to 6 feet

The Bahamas...10 to 15 feet

The water could reach the following heights above ground if the peak surge occurs at the time of high tide...

North Palm Beach to the Flagler/Volusia county line...3 to 5 ft

Surge-related flooding depends on the relative timing of the surge and the tidal cycle, and can vary greatly over short distances. Large waves generated by Matthew will cause water rises to occur well in advance of and well away from the track of the center.

The combination of a dangerous storm surge and the tide will cause normally dry areas near the coast to be flooded by rising waters moving inland from the shoreline. There is a danger of life-threatening inundation during the next 36 hours along the Florida east coast from North Palm Beach to the Flagler/Volusia county line. There is the possibility of life-threatening inundation during the next 48 hours from north of the Flagler/Volusia county line to Fernandina Beach. For a depiction of areas at risk, please see the Prototype National Weather Service Storm Surge Watch/Warning Graphic. For information specific to your area, please see products issued by your local National Weather Service forecast office.

The Prototype Storm Surge Watch/Warning Graphic is a depiction of areas that would qualify for inclusion under a storm surge watch or warning currently under development by the National Weather Service and planned for operational use in 2017. The Prototype Graphic is available at hurricanes.gov.

SURF: Swells generated by Matthew will continue to affect portions of the coasts of Hispaniola, eastern Cuba, and the Bahamas during the next few days, and will spread northward along the east coast of Florida and the southeast U.S. coast tonight and Thursday. These swells are likely to cause life-threatening surf and rip current conditions. Please consult products from your local weather office.

FX.		

Next intermediate advisory at 200 PM EDT.

Next complete advisory at 500 PM EDT.

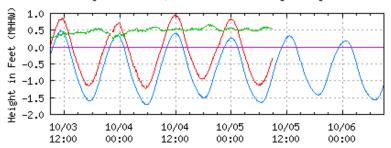
Forecaster Avila

For the purpose of timely release, data contained within this QuickLook have undergone a "limited" NOS Quality Assurance/Control; however, the data have not yet undergone final verification. All data subject to NOS verification.

Jump to: Virginia Key - Water Level, Virginia Key - Winds, Virginia Key - Barometric,
Lake Worth Pier - Water Level, Lake Worth Pier - Winds, Trident Pier - Water Level,
Trident Pier - Winds, Trident Pier - Barometric, Mayport (Bar Pilots Dock) - Water Level,
Mayport (Bar Pilots Dock) - Winds, Fernandina Beach - Water Level,
Fernandina Beach - Winds, Fort Pulaski - Water Level, Fort Pulaski - Winds,
Charleston - Water Level, Charleston - Winds, Charleston - Barometric,
Oyster Landing (N Inlet Estuary) - Water Level, Springmaid Pier - Water Level,
Springmaid Pier - Winds

NOAA/NOS/CO-OPS 8723214 Virginia Key, FL

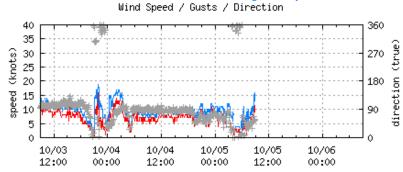
Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Predicted Tide _____ (Obs-Pred) ____ Observed WL ____ MHHW ____

Last Observed Sample: 10/05/2016 12:12 (EDT). Data relative to MHHW Observed: 0.77 ft. Predicted: 0.30 ft. Residual: 0.47 ft. Historical Maximum Water Level: Oct 24 2005, 2.58 ft. Next High Tide: 10/05/2016 12:39 (EDT), 0.33 ft.

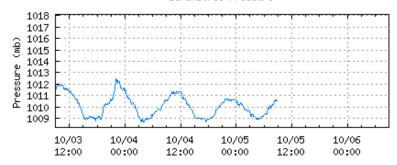
NOAA/NOS/CO-OPS 8723214 Virginia Key, FL



speed gusts direction +
Last Observed Sample: 10/05/2016 12:12 (EDT)
Wind Speed: 12 knots Gusts: 15 knots Direction: 67° T

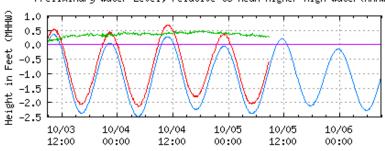
NOAA/NOS/CO-OPS 8723214 Virginia Key, FL

Barometric Pressure



barometric pressure ——
Last Observed Sample: 10/05/2016 12:12 (EDT)
Barometric Pressure: 1011.0 mb

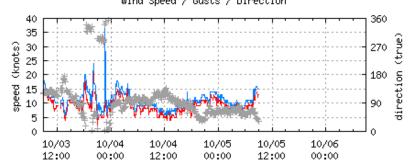
NOAA/NOS/CO-OPS <u>8722670 Lake Worth Pier, FL</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Predicted Tide —— (Obs-Pred) —— Observed WL —— MHHW ——

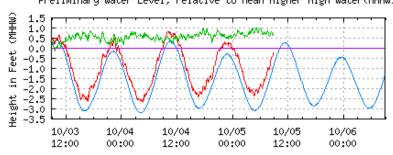
Last Observed Sample: 10/05/2016 12:06 (EDT). Data relative to MHHW Observed: 0.41 ft. Predicted: 0.15 ft. Residual: 0.26 ft. Historical Maximum Water Level: Nov 23 1984, 1.88 ft. Next High Tide: 10/05/2016 23:40 (EDT), -0.16 ft.

NOAA/NOS/CO-OPS <u>8722670 Lake Worth Pier, FL</u> Wind Speed / Gusts / Direction



speed gusts direction +
Last Observed Sample: 10/05/2016 12:06 (EDT)
Wind Speed: 12 knots Gusts: 14 knots Direction: 66° T

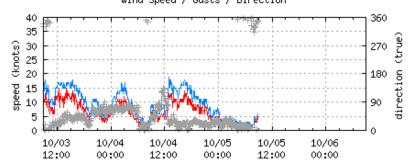
NOAA/NOS/CO-OPS <u>8721604 Trident Pier, FL</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Predicted Tide —— (Obs-Pred) —— Observed WL —— MHHW ——

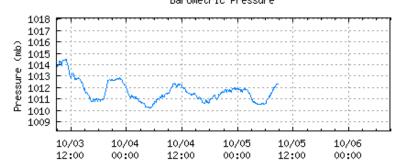
Last Observed Sample: 10/05/2016 12:06 (EDT). Data relative to MHHW Observed: 0.83 ft. Predicted: 0.12 ft. Residual: 0.71 ft. Historical Maximum Water Level: Sep 26 2004, 4.01 ft. Next High Tide: 10/05/2016 23:28 (EDT), -0.43 ft.

NOAA/NOS/CO-OPS <u>8721604 Trident Pier, FL</u> Wind Speed / Gusts / Direction



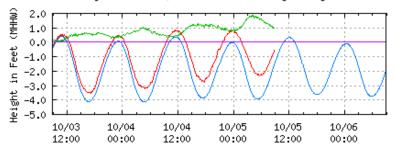
speed gusts direction + Last Observed Sample: 10/05/2016 12:06 (EDT) Wind Speed: 8 knots Gusts: 12 knots Direction: 73° T

NOAA/NOS/CO-OPS <u>8721604 Trident Pier, FL</u> Barometric Pressure



barometric pressure ——
Last Observed Sample: 10/05/2016 12:06 (EDT)
Barometric Pressure: 1013.2 mb

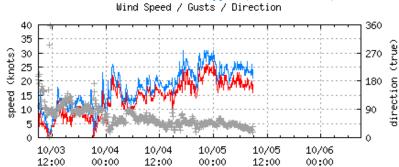
NOAA/NOS/CO-OPS <u>8720218 Mayport (Bar Pilots Dock)</u>, <u>FL</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Predicted Tide (Obs-Pred) (MHHW MHHW)

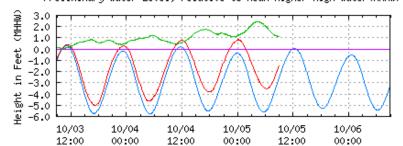
Last Observed Sample: 10/05/2016 12:06 (EDT). Data relative to MHHW Observed: 1.21 ft. Predicted: 0.33 ft. Residual: 0.88 ft. Historical Maximum Water Level: Sep 27 2004, 2.47 ft. Next High Tide: 10/06/2016 00:20 (EDT), -0.09 ft.

NOAA/NOS/CO-OPS 8720218 Mayport (Bar Pilots Dock), FL



speed gusts direction +
Last Observed Sample: 10/05/2016 12:06 (EDT)
Wind Speed: 19 knots Gusts: 25 knots Direction: 27° T

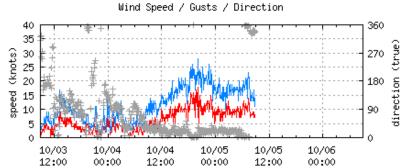
$NOAA/NOS/CO-OPS ~\underbrace{8720030~Fernandina~Beach,~FL}_{Preliminary~Water~Level,~relative~to~Mean~Higher~High~Water(MHHW)}$



Predicted Tide (Obs-Pred) (MHHW MHHW)

Last Observed Sample: 10/05/2016 12:12 (EDT). Data relative to MHHW Observed: 1.13 ft. Predicted: 0.05 ft. Residual: 1.08 ft. Historical Maximum Water Level: Oct 2 1898, 6.94 ft. Next High Tide: 10/05/2016 12:20 (EDT), 0.06 ft.

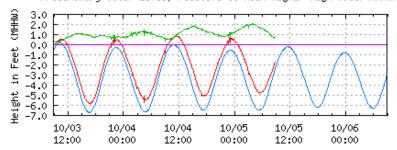
NOAA/NOS/CO-OPS 8720030 Fernandina Beach, FL



speed gusts direction +
Last Observed Sample: 10/05/2016 12:12 (EDT)
Wind Speed: 12 knots Gusts: 18 knots Direction: 359° T

NOAA/NOS/CO-OPS 8670870 Fort Pulaski, GA

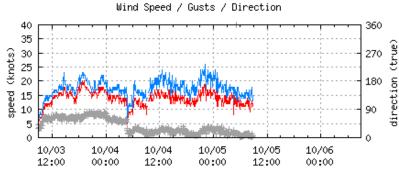
Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Predicted Tide _____ (Obs-Pred) ____ Observed WL ____ MHHW ____

Last Observed Sample: 10/05/2016 12:06 (EDT). Data relative to MHHW Observed: 0.86 ft. Predicted: -0.31 ft. Residual: 1.17 ft. Historical Maximum Water Level: Oct 15 1947, 3.40 ft. Next High Tide: 10/05/2016 23:47 (EDT), -0.79 ft.

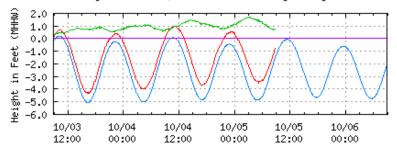
NOAA/NOS/CO-OPS 8670870 Fort Pulaski, GA



speed gusts direction +
Last Observed Sample: 10/05/2016 12:06 (EDT)
Wind Speed: 13 knots Gusts: 18 knots Direction: 8° T

NOAA/NOS/CO-OPS 8665530 Charleston, SC

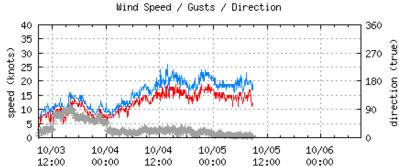
Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Predicted Tide _____ (Obs-Pred) ____ Observed WL ____ MHHW ___

Last Observed Sample: 10/05/2016 12:06 (EDT). Data relative to MHHW Observed: 0.87 ft. Predicted: -0.16 ft. Residual: 1.03 ft. Historical Maximum Water Level: Sep 21 1989, 6.76 ft. Next High Tide: 10/05/2016 23:28 (EDT), -0.62 ft.

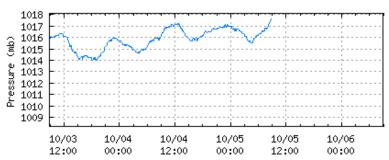
NOAA/NOS/CO-OPS 8665530 Charleston, SC



speed gusts direction +
Last Observed Sample: 10/05/2016 12:06 (EDT)
Wind Speed: 14 knots Gusts: 18 knots Direction: 8° T

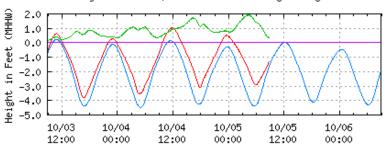
NOAA/NOS/CO-OPS 8665530 Charleston, SC

Barometric Pressure



barometric pressure ——
Last Observed Sample: 10/05/2016 12:06 (EDT)
Barometric Pressure: 1018.1 mb

NOAA/NOS/CO-OPS <u>8662245 Oyster Landing (N Inlet Estuary)</u>, <u>SC</u>
Preliminary Water Level, relative to Mean Higher High Water(MHHW)

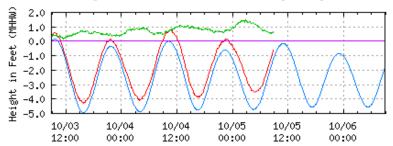


Predicted Tide _____ (Obs-Pred) _____ Observed WL ____ MHHW ____

Last Observed Sample: 10/05/2016 12:00 (EDT). Data relative to MHHW Observed: 0.95 ft. Predicted: 0.02 ft. Residual: 0.93 ft. Historical Maximum Water Level: Aug 26 2011, 2.40 ft. Next High Tide: 10/05/2016 12:11 (EDT), 0.03 ft.

NOAA/NOS/CO-OPS <u>8661070 Springmaid Pier, SC</u>

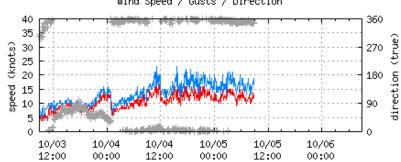
Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Predicted Tide _____ (Obs-Pred) ____ Observed WL ____ MHHW ___

Last Observed Sample: 10/05/2016 12:06 (EDT). Data relative to MHHW Observed: 0.58 ft. Predicted: -0.49 ft. Residual: 1.07 ft. Historical Maximum Water Level: Jan 1 1987, 3.65 ft. Next High Tide: 10/05/2016 23:02 (EDT), -0.84 ft.

NOAA/NOS/CO-OPS <u>8661070 Springmaid Pier, SC</u> Wind Speed / Gusts / Direction



speed gusts direction +
Last Observed Sample: 10/05/2016 12:06 (EDT)
Wind Speed: 13 knots Gusts: 17 knots Direction: 3° T

Latest Water Level Observations on MHHW										
Station ID	Station Name	Date/Time	Observed Water Level	Predicted Tide	Residual Water Level	24 Hour Maximum Storm Tide				
8723214	Virginia Key, FL	10/05/2016 12:12 (EDT)	0.77 ft	0.30 ft	0.47 ft	0.92 ft				
8722670	Lake Worth Pier, FL	10/05/2016 12:06 (EDT)	0.41 ft	0.15 ft	0.26 ft	0.53 ft				
8721604	Trident Pier, FL	10/05/2016 12:06 (EDT)	0.83 ft	0.12 ft	0.71 ft	1.11 ft				
8720218	Mayport (Bar Pilots Dock), FL	10/05/2016 12:06 (EDT)	1.21 ft	0.33 ft	0.88 ft	1.21 ft				
8720030	Fernandina Beach, FL	10/05/2016 12:12 (EDT)	1.13 ft	0.05 ft	1.08 ft	1.13 ft				
8670870	Fort Pulaski, GA	10/05/2016 12:06 (EDT)	0.86 ft	-0.31 ft	1.17 ft	0.87 ft				
8665530	Charleston, SC	10/05/2016 12:06 (EDT)	0.87 ft	-0.16 ft	1.03 ft	0.92 ft				
8662245	Oyster Landing (N Inlet Estuary), SC	10/05/2016 12:00 (EDT)	0.95 ft	0.02 ft	0.93 ft	1.02 ft				
8661070	Springmaid Pier, SC	10/05/2016 12:06 (EDT)	0.58 ft	-0.49 ft	1.07 ft	0.81 ft				

Center for Operational Oceanographic Products & Services (CO-OPS) | National Ocean Service (NOS) National Oceanic and Atmospheric Administration | U.S. Department of Commerce